

*In the claims:*

1-12. (Canceled)

13. (Currently amended) A method for detecting a *Cannabis sativa* L. species in a sample comprising the steps of:

- i) obtaining DNA from the sample,
- ii) amplifying [a] polymorphic repeat units in two or more STR marker loci selected from the group consisting of AAG1, AAG5, AGC1, AGC6, AGC8, AGC9, AGC10, and ACT1 in said DNA [with a multiplex cocktail of claim 7] to form amplification products of various sizes and labels; [and]
- iii) separating the amplification products by size and primer label;
- iv) scoring the results of said separation; and
- v) comparing said scored results to analysis of DNA from a known species.

14. (Currently amended) A method of linking a marijuana sample to a plant source comprising the steps of:

- i) determining [the] an identity of DNA in said marijuana sample by the method of claim 13;
- ii) determining [the] an identity of DNA in a plant source sample [from a plant] by the method of claim 13; and
- iii) comparing the identities of [both] the marijuana sample and the plant source sample [samples] to determine similarities.

15-18. (Canceled)

19. (New) The method of claim 13 wherein polymorphic repeat units in three or more of the recited STR marker loci are amplified.

20 (New) The method of claim 13 wherein polymorphic repeat units in four or more of the recited STR marker loci are amplified.

21. (New) The method of claim 13 wherein polymorphic repeat units in five or more of the recited STR marker loci are amplified.

22. (New) The method of claim 13 wherein polymorphic repeat units in six or more of the recited STR marker loci are amplified.

23. (New) The method of claim 13 wherein polymorphic repeat units in seven or more of the recited STR marker loci are amplified.

24. (New) The method of claim 13 wherein polymorphic repeat units in eight of the recited STR marker loci are amplified.

25. (New) The method of claim 14 wherein polymorphic repeat units in three or more of the recited STR marker loci are amplified.

26 (New) The method of claim 14 wherein polymorphic repeat units in four or more of the recited STR marker loci are amplified.

27. (New) The method of claim 14 wherein polymorphic repeat units in five or more of the recited STR marker loci are amplified.

28. (New) The method of claim 14 wherein polymorphic repeat units in six or more of the recited STR marker loci are amplified.

29. (New) The method of claim 14 wherein polymorphic repeat units in seven or more of the recited STR marker loci are amplified.

30. (New) The method of claim 14 wherein polymorphic repeat units in eight of the recited STR marker loci are amplified.